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Data sheet 6ES7157-0AG81-0XA0

Active field distributor AFD4 for PROFIBUS PA for foundation Fieldbus H1, 4 short circuit-proof spur lines with bounce protection logic Automatic bus termination for line and ring topology for extended temperature range Degree of protection IP66



General information	
Product function	
● Repeater function	No
Supply voltage	
permissible range, lower limit (DC)	16 V
permissible range, upper limit (DC)	32 V
Reverse polarity protection	Yes; only in conjunction with FDC 157
Overvoltage protection	No
Input current	
Current consumption (in no-load operation), typ.	24 mA; 54 mA at the end of the cable
Current consumption, max.	264 mA
Power loss	
Power loss, typ.	384 mW
Power loss, max.	3.2 W
Interfaces	
PROFIBUS PA	
● Transmission rate, max.	31.25 kbit/s
● Number of connectable PA field devices	4
● Current output to PA field devices, max.	240 mA
● permissible current per spur line	60 mA
Protocols	
PROFIBUS DP	No
PROFIBUS PA	Yes
AS-Interface	No
FOUNDATION Fieldbus H1	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	No
Diagnostics function	Yes
Diagnostics indication LED	
● Main line status	Yes
● Main line failure	Yes
● Spur line status/fault	Yes
● automatic bus termination	Yes
Potential separation	
between main line and spur lines	No
Degree and class of protection	
IP degree of protection	IP66

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Standards, approvals, certificates	
Use in hazardous areas	
● ATEX Zone 1	No
● ATEX Zone 21	No
● ATEX Zone 2	Yes
● ATEX Zone 22	Yes
● FM Class I Zone 1	No
● FM Class I Zone 2, Division 2	Yes
Ambient conditions	
Ambient temperature during operation	
● min.	-40 °C
● max.	70 °C
Ambient temperature during storage/transportation	
● min.	-40 °C
● max.	85 °C
Relative humidity	
● Operation, max.	95 %
Connection method	
connection method / main cable / header	
● number of connections / for PROFIBUS PA main cable	2
● design of the electrical connection / for PROFIBUS PA main cable	Screw terminal block
● design of the thread / of cable screw connection / for PROFIBUS PA main cable	M16
● design of the PROFIBUS PA main cable	Type A
● Cable diameter, min.	4 mm
● Cable diameter, max.	9 mm
● Conductor cross-section, min.	0.2 mm²
● Conductor cross-section, max.	2.5 mm²
● product function / of the PROFIBUS PA main cable / automatic bus termination	Yes
● permissible main line current	1 A
connection method / spur line / header	
● Number of spur lines	4
● Design of terminals	Screw terminal block
● Type of connection (enclosure cable gland)	M16
● Type of cable	Type A
● Cable diameter, min.	4 mm
● Cable diameter, max.	9 mm
● Conductor cross-section, min.	0.2 mm²
● Conductor cross-section, max.	2.5 mm²
● total current output to field devices, max.	240 mA
● Number of connectable field devices	4
● Current limitation per field device, max.	60 mA
● No-load voltage, max.	30 V
● Short-circuit current (test current); max.	6 mA
● intrinsically safe according to FISCO model	No
● Debounce logic	Yes
Dimensions	
Width	220 mm
Height	120 mm; without screw glands
Depth	83 mm
Weights	
Weight, approx.	2 000 g

Classifications

	Version	Classification
eClass	14	27-24-26-08
eClass	12	27-24-26-08
eClass	9.1	27-24-26-08

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eClass	9	27-24-26-08
eClass	8	27-24-26-08
eClass	7.1	27-24-26-08
eClass	6	27-24-26-08
ETIM	10	EC001604
ETIM	9	EC001604
ETIM	8	EC001604
ETIM	7	EC001604
IDEA	4	3564
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

Miscellaneous

China RoHS

For use in hazardous locations

Type Examination Certificate

Environment

last modified: 5/4/2025

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